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## Liquid Argon Time Projection Chamber Trigger Development with MicroBooNE and SBND

The MicroBooNE and Short Baseline Near Detector (SBND) experiments are Liquid Argon Time Projection Chamber (LArTPC) neutrino detectors that have been collecting or will soon be collecting neutrino and cosmic data in the Fermilab Booster Neutrino Beam. They collectively aim to perform  $\nu$ -Ar cross-section measurements, explore the low-energy excess in the  $\nu_e$  spectrum reported by the MiniBooNE experiment, and search for sterile neutrino oscillations as part of three LArTPCs that make up the Short Baseline Neutrino (SBN) Program at Fermilab. Both detectors provide a unique opportunity for the implementation and testing of TPC-based triggers as R&D towards Deep Underground Neutrino Experiment (DUNE). One of the technical challenges that these studies aim to address is that of efficient self-triggering of a LArTPC utilizing TPC signal information. This capability will enable searches for rare processes in the DUNE, such as neutrino interactions from a potential galactic supernova burst, or baryon number violating nucleon decays. This talk will describe the MicroBooNE and SBND TPC readout systems and ongoing R&D efforts to develop and demonstrate TPC-based triggering.

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